#### REMARKS

Claims 1-31 are pending in the present Application. Claims 1-4, 11, 14, 20, 21, 26, 30, and 31 have been amended. No Claims have been added or canceled, leaving Claims 1-31 for consideration upon entry of the present Amendment. No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

# Claim Rejections Under 35 U.S.C. § 112, First Paragraph

The Examiner rejected Claims 1 - 31 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner states that Claims 1, 4, 14, 20, 30, and 31 contain multiple occurrences of the term "substituted", which renders the claims indefinite since it is not clear what exactly the substituents are.

The Applicants respectfully disagree with the Examiner and assert that the original claims are not indefinite, particularly in light of the disclosure because one of ordinary skill in the art would clearly understand the subject matter the Applicants regarded as the invention. Nonetheless, Applicants have amended Claims 1, 4, 14, 20, 30, and 31 to remove every occurrence of the phrase "a substituted or an unsubstituted" in the description of the R<sup>1</sup>, R<sup>2</sup>, and R<sup>3</sup> groups in order to advance prosecution. Applicants earnestly assert that this amendment has not altered the scope of the Claims as one of ordinary skill in the art would readily appreciate that the term "aliphatic functional group" encompasses both substituted and unsubstituted aliphatic functional groups and the term "aromatic functional group" encompasses both substituted and unsubstituted aromatic functional groups.

Applicants respectfully request withdrawal of the rejections under 35 U.S.C. 112.

### Claim Objections

The Examiner objected to Claims 1-4, and 14 due to alleged informalities in the use of the word "about" in these Claims. In particular, the Examiner states that the spacer between the

silane and sulfonate is not a polymer, so the amount of carbon atoms in the spacer should be specific. Further, the Examiner states that the Applicants have not defined exactly what "about" means.

The Applicants respectfully disagree with the Examiner's rejection. The spacer does not have to be a polymer for use of the word "about" to be appropriate. It is well recognized that in compounds containing few carbons, for instance the lower alkanes or alcohols, an increase or decrease in the number of carbons can have a profound effect on the compound, particularly its physical properties, however an increase or decrease in the number of carbons in a compound having a large number of carbons will not have a similar effect. Consequently the Applicants have amended the claims to remove the word "about" when used in conjunction small numbers of carbon atoms such as 1 2, and 3.

In view of the foregoing comments, Applicants respectfully request that the objections to Claims 1 - 4 and 14 be withdrawn.

## Claim Rejections Under 35 U.S.C. § 102(b)

The Examiner rejected Claims 1-3, 14-21, and 25 under 35 U.S.C. § 102(b), as allegedly anticipated by Van Dyke (US 3,141,898).

Van Dyke teaches compounds of the formula (CH<sub>3</sub>)<sub>3</sub>Si-R-SO<sub>3</sub>M, wherein each R is a divalent linking alkylene radical having from 1 to 12 carbon atoms, and M represents hydrogen when the compounds are sulfonic acids, and M represents a salt-forming cation such as ammonium and metallic ions when the compound is a salt.

Van Dyke does not teach or disclose a quaternary onium phosphorus compound having the formula (I):

$$\begin{array}{c|c}
R^{2} & R^{3} \\
R^{2} & R^{3} \\
R^{3} & R^{3}
\end{array}$$
SO<sub>3</sub>

$$\begin{pmatrix}
R^{1}_{R} \\
X \\
X \\
R^{1}R^{1}
\end{pmatrix}^{+}$$
(I)

wherein each R<sup>1</sup> independently comprises an aliphatic or an aromatic functional group; X is phosphorus; each R<sup>2</sup> independently comprises an aliphatic or aromatic functional group; each R<sup>3</sup> independently comprises an aliphatic functional group, an aromatic functional group, or a hydrogen; and "n" has a value of 1 to about 20.

To anticipate a claim, a reference must disclose each and every element of the claim. Lewmar Marine v. Varient Inc., 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987). Van Dyke cannot anticipate the Claims 2, 315-21 and 25, , because Van Dyke does not teach every element of the claims. In view of the foregoing comments, the Applicants request allowance of Claims 1-3, 14-21, and 25.

### Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-3, 14-21, 25, and 26 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Van Dyke (US 3,141,898) in view of Klein (US 5,430,166). Applicants respectfully traverse this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made.

As discussed above, Van Dyke does not teach or disclose the instantly claimed quaternary phosphonium organosilicon compounds. Klein teaches silanes of the general formula  $(R^1R^2R^3)Si-R^4-(R^5)_a-R^6$ , where  $R^6$  is an  $-OSO_3X$  group or an  $OR^7$  group, wherein X is a hydrogen, an alkali or an optionally substituted ammonium ion, and  $R^7$  is an alkyl group with 1-4 carbon atoms or an acetyl group; a is 0 or 1, with the proviso that, when  $R^6$  represents the  $OR^7$  group, a=1. Clearly Klein, like Van Dyke, does not teach or disclose a quaternary phosphonium organosilicon compound. Thus Klein does not provide the missing element of Van Dyke. The

Examiner has not established a prima facie case of obviousness because the cited prior art does not disclose all the elements of the claimed invention.

In view of the foregoing comments, the Applicants therefore request the Examiner to allow Claims 1-3, 14-21, 25, and 26.

#### Allowable Subject Matter

The Applicants thank the Examiner for allowing Claims 27-29. Further, the Examiner states that Claims 5-13, and 22-24 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicants submit that in view of the currently amended independent Claims 4 and 14, the dependent Claims 5-13, and 22-24 as such are also in condition for allowance.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0862.

Respectfully submitted,

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